



THE COMMISSIONER IS AUTHORIZED  
TO CHARGE ANY DEFICIENCY IN THE  
FEES FOR THIS PAPER TO DEPOSIT  
ACCOUNT NO. 23-0975

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of : **Confirmation No. 9264**  
Shotaro MOCHIZUKI : Docket No. 2003\_1428A  
Serial No. 10/687,737 : Group Art Unit 3643  
Filed October 20, 2003 : Examiner S. Nguyen  
METHOD OF MANUFACTURING : **Mail Stop: AMENDMENT**  
GRANULATED BODY FOR ABSORBING  
EXCRETION OF ANIMALS

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**REQUEST FOR RECONSIDERATION**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Initially, applicant and his undersigned attorney wish to thank Examiner Nguyen for the courtesy in granting a personnel interview to applicant's attorney on April 12, 2005.

In the interview, applicant's attorney presented detailed arguments against the propriety of the prior art rejections presented in the January 11, 2005 Office Action, and the Examiner agreed that the prior art applied in the Office Action does not teach the limitations presented in claims 5 and 6.

More specifically, in the January 11, 2005 Office Action, claims 5 and 6 were rejected under 35 U.S.C. 103(a) as being unpatentable over Fukuda et al. (U.S. 3,969,268) in view of Skwiercz et al. (U.S. 6,682,673). For the reasons explained in the interview, and as set forth below, this rejection is respectfully traversed and it is respectfully requested that the rejection be withdrawn.

With exemplary reference to the drawing figures, claim 5 sets forth a method of manufacturing a granulated body for absorbing excrement of animals, comprising: pulverizing dry bamboo to obtain dry bamboo fibers 1; pulverizing paper to obtain paper pulp fibers 2; mixing the dry bamboo fibers 1 with the paper pulp fibers 2 while adding moisture 4b so that the moisture 4b is absorbed by the dry bamboo fibers 1, to thereby form a resultant mixture; granulating the resultant mixture to form a wet granulated body 3; and creating externally-opening pores 7c in the body 3 by blowing hot air to the body 3 such that the hot air penetrates the body 3 and causes moisture 4b in the body 3 to transpire outwardly from the body 3 so as to form transpiring paths that constitute the externally-opening pores 7c (see Fig. 2C).

Claim 6 sets forth a similar method to that of claim 5, but specifies the dry bamboo fibers as a chief material, and does not specify the inclusion of paper pulp fibers.

In the prior art rejection, the Examiner asserted that Fukuda discloses "creating externally-opening pores in said body (col. 4, lines 60-68) such that the hot temperature penetrates said body and causes moisture in said body to transpire outwardly from said body so as to form transpiring paths that constitutes said externally-opening pores." However, this cited portion of the Fukuda text (col. 4, lines 60-68) does not mention how the pores are formed; rather, it only discusses the average pore diameter and how the treatment time and temperature affect the average pore diameter.

The only mention in Fukuda of how the pores are formed is found at column 4, lines 3-9 and lines 21-31. In particular, at lines 27-31 of column 4 of Fukuda, it is stated that "supposedly, the **dehydration** and **carbonization** of the fiber during this treatment has a great influence on the formation of pores ...".

In other words, from the disclosure of Fukuda et al., it would seem that the disclosed pores of Fukuda et al. are formed, not via transpiration, but rather via dehydration and carbonization. This is a completely different process than the recited process of claims 5 and 6. For example, "carbonization" is a process carried out in an air-starved environment, quite

contrary to requirement of the claimed methods of claims 5 and 6 that the creating of externally-opening pores be carried out by "blowing hot air".

The Examiner cited the Skwiercz et al. patent for teaching the drying of a granulated body in a recirculating oven. This teaching is taken from the example at column 5, line 42 - column 6, line 4 of Skwiercz. The example describes the hardening of a soybean oil epoxyacrylate with flax fiber randomly laid non-woven and distributed thereon using a recirculating oven; it does not suggest blowing hot air to a wet bamboo fiber body, nor creating pores via transpiration.

Also, with specific reference to claim 5, it is noted that claim 5 requires a resultant mixture of both bamboo fibers and paper pulp fibers. The Fukuda et al. patent discloses only cellulose fibers, and that the cellulose can be a pulp fiber obtained from "woods, bamboos, or linter" (see col. 2, lines 11-16). It does not teach mixing bamboo fibers and paper pulp fibers as required by claim 5

For the above reasons, it is respectfully submitted that the present invention as recited in each of claims 5 and 6 is not taught or suggested by the Fukuda et al. and Skwiercz et al. references. Furthermore, it is submitted that the above-described shortcomings of these references are such that a person having ordinary skill in the art would not have been motivated to modify the Fukuda et al. patent or to make any combination of the references of record in such a manner as to result in or otherwise render obvious the present invention of claims 5 and 6. Therefore, it is respectfully submitted that claims 5 and 6 are clearly allowable over the prior art of record.

Next, in item 3 on pages 3 and 4 of the Office Action, claims 7 and 8 were rejected under 35 U.S.C. 103(a) as being unpatentable over Medoff et al. (U.S. 6,448,307). This rejection is also respectfully traversed and it is respectfully requested that the rejection be withdrawn, for the following reasons.

With exemplary reference to the drawing figures, claim 7 sets forth a method of manufacturing a granulated body for absorbing excrement of animals, comprising: pulverizing dry bamboo to obtain dry bamboo fibers 1; pulverizing paper to obtain paper pulp fibers 2;

providing the dry bamboo fibers 1 and the paper pulp fibers 2 as chief materials; combining a water-sensitive coagulant powder together with the dry bamboo fibers 1 and the paper pulp fibers 2 and admixing the water-sensitive coagulant powder, the dry bamboo fibers and the paper pulp fibers in a non-hydraulic state, to thereby form a resultant mixture; and compression-molding (see Fig. 5A) the resultant mixture to form a granulated body (see Fig. 5B) having a fixed shape with a porous structure.

Claim 8 sets forth a method similar to that recited in claim 7, but does not specify the pulverizing of paper to obtain paper pulp fibers nor the inclusion of the paper pulp fibers as a chief material.

Thus, each of claims 7 and 8 is directed to a method of manufacturing a granulated body for absorbing excrement of animals, and requires that dry bamboo fibers (or dry bamboo fibers and paper pulp fibers) are admixed with a water-sensitive coagulant powder **in a non-hydraulic state** to form a resultant mixture. Each of the claims then requires the resultant mixture to be **compression-molded** to form a granulated body having a fixed shape with a porous structure.

In item 4 on pages 4 and 5 of the Office Action, the Examiner pointed to column 6, lines 35-65 of the Medoff et al. patent for teaching various methods, and the Examiner asserted that these methods teach a non-hydraulic mixture that is compression molded. However, contrary to this assertion by the Examiner, although there is disclosure of a compression molding (of texturized fibrous material and thermosetting resins), there is no disclosure of compression molding of a mixture in a **non-hydraulic state**.

More specifically:

At column 6, lines 39-49, Medoff et al. teaches preparation of bulk molding compounds (BMCs). Medoff discloses that the BMCs are "materials made by combining a resin and chopped fibers in a dough mixture, then mixing until the fibers are **well wetted** and the material has the **consistency of modeling clay**." Accordingly, it is believed apparent that the example disclosed in Medoff et al. relating to bulk molding compounds (BMCs) does not disclose or

suggest the presently claimed method which requires compression-molding of a non-hydraulic mixture.

Next, Medoff et al. discloses, at column 6, lines 50-60, the preparation of sheet molding compounds (SMCs). According to Medoff et al., these SMCs are prepared by having "special thickeners [added] ... to greatly increase the viscosity." The term "viscosity" clearly implies that the mixture is fluidic, not non-hydraulic. In this regard, according to *The American Heritage Dictionary of the English language, fourth edition*, 2004, 2000 by *Houghton Mifflin Company*, "viscosity" is defined as "the condition or property of being viscous", and the term "viscous" is defined as "having relatively high resistance to flow, and as viscid; sticky." The term "viscid" is defined as "thick and adhesive. Used of a **fluid**."

Accordingly, as believed apparent from the description of the SMCs as having their viscosity increased, the SMCs described in Medoff et al. are not disclosed as being non-hydraulic. Also, in the SMC method of Medoff et al., the resin mixture (i.e. resin, fillers, pigments, catalysts, mold release agents, special thickeners) is spread onto a moving nylon film, and then the texturized fibers are dispersed onto the resin. Then, this material passes through rollers to "help the resins to **wet** the fibers." (See column 6, line 58). Accordingly, the SMCs are clearly not disclosed as non-hydraulic material that are compression-molded.

Other techniques are also disclosed by Medoff et al. For example, column 6, line 63 - column 7, line 7, preparation of the elastomers is described. First in this regard, according to Medoff et al., an elastomer is added to a two-roll mill, and then, after a couple minutes, other ingredients including a vulcanizing agent are added to the two-roll mill. After the elastomer has been "compounded", the texturized fibrous material is added. This compounded material is cut into sheets and then "compression molded." There is no suggestion in this description of the elastomers of the material being in a non-hydraulic state, as required by claims 7 and 8.

At column 7, lines 8-18 of Medoff et al., it is alternatively described that a sheet can be produced as an extrudate and then compression molded. Again, however, there is no disclosure

or suggestion in this alternative preparation that the material undergoing compression molding is in a non-hydraulic state.

Accordingly, for the above reasons, it is believed apparent that the Medoff et al. patent clearly does not disclose or suggest the present inventive method as recited in claims 7 and 8. Therefore, it is respectfully submitted that claims 7 and 8 are clearly allowable over the prior art of record.

In view of the foregoing amendments and remarks, it is respectfully submitted that the present application is clearly in condition for allowance. An early notice thereof is earnestly solicited.

If, after reviewing this Amendment, the Examiner feels there are any issues remaining which must be resolved before the application can be passed to issue, it is respectfully requested that the Examiner contact the undersigned by telephone in order to resolve such issues.

Respectfully submitted,

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GRANULATED BODY FOR ABSORBING  
EXCREMENT OF ANIMALS : Mail Stop: AMENDMENT

**PATENT OFFICE FEE TRANSMITTAL FORM**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Attached hereto is a check in the amount of \$60.00 to cover Patent Office fees relating to filing the following attached papers:

Petition for Extension of Time ..... \$60.00

A duplicate copy of this paper is being submitted for use in the Accounting Division, Office of Finance.

*The Commissioner is authorized to charge any deficiency or to credit any overpayment associated with this communication to Deposit Account No. 23-0975, with the EXCEPTION of deficiencies in fees for multiple dependent claims in new applications.*

Respectfully submitted,

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